

**U.S. Department of Energy**  
**STATE PLAN/MASTER FILE WORKSHEET**  
**Grant Number: EE00195, State: MO, Program Year: 2010**

This worksheet should be completed as specified in Section III of the Weatherization Assistance Program Application Package.

**III.1 Eligible Population**

**III.1.1 General Description**

**Definition of income used to determine eligibility:**

The State has set income guidelines at 200% of federal poverty level to comply with the federal WAP regulations. The annual revision of poverty income guidelines are published in the Federal Register in February or March. The State will inform each Subgrantee as the revisions are made available.

**Procedures to determine that units weatherized have eligibility documentation:**

No dwelling unit may be weatherized without documentation that the dwelling unit is an eligible unit. All household income must be calculated per DOE requirements, and income and home ownership documented. According to federal regulations, homes previously weatherized between September 30, 1975, and September 30, 1994 are eligible to be re-weatherized. Any home completed after September 30, 1994, is not eligible to be re-weatherized with federal funds.

**Definition of children:** Below age 19

**Recommend tribal organization(s) be treated as local applicant?** No

**If YES, Recommendation: If NO, statement that assistance to low-income tribe members and other low-income persons is equal:**

Subgrantees will provide assistance to low-income Native Americans and other low-income persons on an equal basis.

**III.1.2 Selection of Areas to Be Served**

Services will be offered throughout the state of Missouri. Current service areas are based on the geographic boundaries of the State's Community Action Agencies (CAAs). The Missouri Department of Natural Resources' Division of Energy (DNR/DE) administers federal funds to 16 regional Community Action Agencies, one city government and one not-for profit organization.

**III.1.3 Priorities**

Priority will be given to low-income elderly, persons with disabilities, and families with children. High Energy User and High Energy Burden are allowed criteria, but not mandatory. If a subgrantee chooses to use High Energy User or High Energy Burden as a priority criteria, they will be required to report this information to DNR/DE. The DNR/DE will report all subgrantee High Energy User and High Energy Burden information to DOE on the quarterly program report.

The Missouri Low-Income Weatherization Assistance Program Operations Manual details client selection criteria including program priorities.

**III.2 Climatic Conditions**

The combined total of both heating and cooling degree days ranges from 7938 in the northwest to 4943 in the southeast. Heating degree days range from a high of 6228 to a low of 4008. Cooling degree days range from a high of 1710 to a low of 935 for the 30-year National Oceanic and Atmospheric Administration (NOAA) average. The Weatherization Assistant (audit tool developed by Oak Ridge National Lab) provides heating and cooling degree days for use with the computerized audit programs.

Weatherization Subgrantee	Weather Station
Central Missouri Community Action	Columbia
Community Services, Inc.	Kansas City
Delta Area Economic Opportunity Corp	Memphis, TN
Kansas City Housing & Community Development Department	Kansas City
East Missouri Action Agency	St. Louis

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Economic Security Corp.	Tulsa, OK
Green Hills Community Action Agency	Kansas City
Jefferson-Franklin Community Action Corporation	St. Louis
Missouri Ozarks Community Action	Springfield
Missouri Valley Community Action Agency	Columbia
North East Community Action Corporation	St. Louis
Northeast Missouri Community Action Agency	Columbia
Ozark Action, Inc.	Springfield
Ozarks Area Community Action Corporation	Springfield
Community Action Agency of St. Louis County	St. Louis
South Central Missouri Community Action Agency	Springfield
Urban League of Metropolitan St. Louis	St. Louis
West Central Missouri Community Action Agency	Columbia

### III.3 Weatherization Work

#### III.3.1 Type of Work to Be Done

The state is committed to providing quality weatherization service on each client's home. With limited funds available, it is very important that funds be used to provide services which will result in the greatest savings per dollar. The state believes it is essential to use a process that correctly identifies energy conservation measures (ECMs) that provide the greatest chance to reduce energy consumption, maximize savings, and increase client comfort. It is also important that the selection of ECMs does not compromise the health and safety of the client. Measures will be allowable when the appropriate savings to investment ratio (SIR) is equal to or greater than 1.0 and as further defined as allowable materials/equipment to 10 CFR Part 440 Appendix A. The program operations manual outlines our procedures for work priorities. Types of work that may be done:

- Air leakage reduction
- Attic insulation
- Wall insulation
- Foundation and floor insulation
- Duct insulation
- Heating system clean and tunes, repairs, and replacements
- Health and safety
- Lighting retrofits
- Hot water Heaters
- Refrigerator Replacement
- Air Condition (window unit and central air unit)

#### III.3.2 Energy Audit Procedures

The energy audit procedures currently used in the Missouri WAP are of a comprehensive, holistic nature consisting of common sense, advanced diagnostic and assessment techniques, interior and exterior visual inspections, client interviews, and data collection. Additionally, the audit procedures employ the use of a computerized audit program as a tool to aid in selecting the most cost-effective measures.

The state has adopted the National Energy Audit Tool (NEAT) and the Manufactured Home Energy Audit (MHEA) developed by Oak Ridge National Laboratory (ORNL). The state began phasing in the NEAT audit on July 1, 1993. NEAT was used on a statewide basis beginning July 1, 1994 and the state began implementation of MHEA on July 1, 2008. Subgrantees need to update their NEAT and MHEA audits with the most recent version at the start of each program year. Subgrantees will also need to update their fuel costs and other applicable costs in the audits. The NEAT audit may be used primarily on single-family, site-built units and can accommodate some multi-family dwelling structures (1-4 units). A subgrantee that undertakes weatherization of multi-family structures which cannot be addressed adequately with the NEAT audit will be required to have a U.S. DOE and DNR/DE approved audit process specifying appropriate and cost-effective measures. DOE has not released the multi-family audit to the states. Further changes to MHEA will be implemented periodically according to a planned maintenance/update schedule similar to that followed by NEAT on the past few years. Audit material was submitted during PY2008 for validation.

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<u>Unit Types</u>	<u>Audit Procedures and Dates Most Recently Approved by DOE</u>
Single-family	The NEAT audit was approved and used statewide since July 1, 1994. The NEAT audit was re-approved December 10, 2003. Audit material was submitted during PY2008 for validation.
Multi-family	If applicable, will be weatherized using the NEAT audit. If the subgrantees are not able to use the NEAT, they will be required to have a USDOE and DNR/DE approved audit process specifying appropriate and cost-effective measures.
Mobile Home	A site specific energy audit will be performed on each mobile home using the MHEA. Audit material was submitted during PY2008 for validation.

### **III.3.3 Final Inspection**

No dwelling unit may be reported to DOE as completed until all weatherization measures have been installed according to the work plan, or as documented in a change order request, and the subgrantee, or its authorized representative, has conducted a final inspection and certified that the work has been completed in a professional manner in accord with WAP work standards, and in accordance with the priority determined in 10CFR 440.

### **III.3.4 Assessment of Effectiveness**

The "MDNR General Terms and Conditions for Federal Subgrants", subgrant Scope of Services, and Subgrant Assistance Agreement detail criteria deemed necessary for a Subgrantee to be considered in contract compliance with the State. An annual performance evaluation will be conducted. Penalties and actions are being developed for non-compliance.

Annually, DNR/DE evaluates subgrantee agencies to determine actual homes weatherized versus planned goals. Expenditures are reviewed for planned versus actual. The annual review also evaluates both housing quality and procedural monitoring findings from on-site reviews. In addition, the DNR/DE will evaluate each subgrantee for the rate of funds expenditure to help ensure that LIWAP funds are being used efficiently and effectively to serve the public.

The Missouri Low-Income Weatherization Assistance Program Operations Manual details terms for probation and procedures to terminate a weatherization subgrantee.

A monitoring tool has been developed and used to evaluate technical error rates after monitoring visits and to evaluate compliance. This monitoring tool remains under review for effectiveness.

### **III.4 Health and Safety**

See attachment.

### **III.5 Rental Procedures**

Rental units are weatherized under the Missouri WAP based on eligibility criteria established in the WAP State Plan. Eligible clients residing in rental units must have a signed landlord agreement before work can commence. The agreement outlines the following federal regulation criteria.

- Landlord agrees not to raise the rent on weatherized units for a period of two years after weatherization is complete without just cause.
- The tenant will not be evicted during this two year period without just cause.
- The landlord agrees that tenant(s) with utility inclusive rent will receive reduction in rent when utilities are reduced as a result of weatherization.
- Landlord shall not sell the premises for a period of two years unless the buyer agrees to assume the above obligation.

When work is performed on any type of rental unit, the State recognizes the potential for owners to receive undue

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enhancement benefits. Therefore, the State requires a Subgrantee to negotiate with an owner/landlord for match contribution. Landlords must provide a minimum of a five percent cash contribution of estimated labor and material project costs before weatherization work can begin on a home. The requirement that the owner/landlord provide a minimum of a five percent cash contribution to the project will be waived if the owner/landlord's annual taxable income is at or below 200 percent of the federal poverty level. In order to receive this waiver, the owner/landlord shall sign and submit to the subgrantee an affidavit, under penalty of perjury, certifying that his or her taxable income is at or below 200 percent of the federal poverty level.

The Subgrantee should document both positive and negative results of negotiations with landlords. Landlord contributions are considered as leveraged funds and should be reported to the State. Leveraged monies remain with the Subgrantee and are used to supplement State allocations.

The definition that will apply in Missouri for undue enhancement is any work performed on a dwelling that cannot be expected to directly result in energy savings or the preservation of agency-installed work related to energy savings. Rental units are not eligible to receive furnace replacements as this has been determined to be undue enhancement.

In practical terms, this undue enhancement statement directs local subgrantees to perform only the enhancements that are based on the use of NEAT or MHEA, as well as limiting repairs to the definition of incidental repairs. It is our position that as long as the local agency adheres to this guideline, no undue enhancement has been provided to an eligible dwelling.

The Subgrantee is cautioned in attempting large multi-family housing. Subgrantees shall seek approval by the DNR/DE through the Weatherization Program Manager.

Large multi-family buildings may be exempt from the requirement that income-eligible persons must occupy at least 66 percent of the units. As few as 50% of the units may be certified as eligible to qualify the building for weatherization services. This exception would apply only to those large multi-family buildings where investment of DOE funds would result in significant energy-efficiency improvements because of upgrades to equipment, energy systems, common space, or building shell. Local agencies will be better able to select the most cost-effective investments and enhance partnership efforts to leveraged funds and/or landlord contributions. However, for multi-family structures having five or more units, the State has determined the owner/landlord will be required to provide a minimum of 25 percent cash contribution of the weatherization project cost.

The key factor is to ensure the investment of DOE funds coupled with leveraged resources will result in significant energy savings. Subgrantees shall work closely with the state when undertaking large multi-family projects.

## **III.6 Program Management**

### **III.6.1 Overview**

The DNR/DE administers the federal Low-Income Weatherization Assistance Program (LIWAP) statewide in Missouri. The DNR/DE is organized into sections to provide measurable public benefit services to the citizens of the State of Missouri. The DNR/DE consists of several sections that contribute greatly to the LIWAP program. The LIWAP section contains the program management and technical staff. The program manager and other staff in the LIWAP section are responsible for the day-to-day operation of the LIWAP program including procedural and financial monitoring and technical monitoring of weatherized homes. The staff review guidance and regulations regarding the LIWAP program. The technical staff are also responsible for performing housing inspections and providing technical assistance to the subgrantees. St. Louis staff provide assistance in performing housing inspections and provide technical assistance to the subgrantees in their geographical areas. In addition, contract monitoring staff may be used as necessary. The Policy and Analysis section intervenes in utility rate cases to leverage more funding for LIWAP. The Fiscal and Administrative Section provides financial assistance in completion of the application for funding, subgrant assistance agreements, invoice processing, data collection and reporting, assisting with procedural and financial monitoring. The DNR Administrative Support provides fiscal support to the DNR/DE and the LIWAP program. This includes review of state and federal regulations, LIWAP regulations, etc. This DNR fiscal support is funded from indirect charges included in the LIWAP grant.

Energy costs consume a far greater percentage of income in low-income households. In 2008, weatherized homes nationally saved \$1.9 billion, as a group. At current prices, home energy savings average \$413 each year. This allows low-income households to have more affordable energy bills and makes available more money for food, medicine, transportation and other necessities.

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The LIWAP reduces energy consumption and utility bills, keeps money in the local economy, has a positive impact on the household's promptness of utility payments and arrearages and reduces environmental pollution.

**LIWAP Goals:**

- Effective management of state and federal weatherization funds.
- Continuation of improved weatherization services. Increased energy-efficient housing, long-term reduction in utility bills and the comfort and safety of those served.
- Close working relationships with local weatherization agencies and others that are engaged in delivery of services to citizens of the State of Missouri.

### **III.6.2 Administrative Expenditure Limits**

The State will authorize additional administrative funds up to 5% of an agency's budget for Subgrantees with less than \$350,000 of allocation of federal WAP funds. To request this higher amount, a Subgrantee must document a need for additional administrative funds for WAP-related issues and obtain prior approval from DNR/DE. These costs will be monitored by the DNR/DE. The State will review each Subgrantee's budget and approve budgets which have justified WAP and agency administration costs.

### **III.6.3 Monitoring Approach**

#### **I. INTRODUCTION**

The State of Missouri administers the Weatherization Assistance Program (WAP) through a supervised network of nonprofit Subgrantee agencies and local governments. As the granting agency for the statewide program, the DNR/DE is responsible for monitoring the performance of each local WAP Subgrantee. Monitoring enables DNR/DE to determine if the residents of Missouri are being adequately served and if the WAP is being operated in compliance with the federal/state regulations and requirements. Information obtained by the monitoring effort is used to determine:

- Internal controls and processes used by subgrantees
- Types of training and technical assistance required
- Fiscal integrity of subgrantees
- Production rates
- Proactive measures that may be taken to improve program operations
- Compliance with federal/state regulations and requirements
- Quality of weatherization work performed on clients homes

**II. PROBLEM RESOLUTION:** A variety of problems may arise during the course of a program year which may require different methods of resolution. Most problems can be placed into one of four categories.

#### **1. Reporting**

Reporting problems can generally be resolved using written communication explaining the problem. Where the problem is significant, an on-site visit will be made to gather the correct data and assist the Subgrantee in developing better reporting procedures.

#### **2. Housing Quality**

A housing quality problem may be noticed during a field visit. Where significant problems are found in the workmanship on the home, the Subgrantee will be required to return to the home(s) and correct the problem. Where a problem is found to be widespread, the Subgrantee will be required to notify DNR/DE of the resolution to the problem following procedures as defined in the Weatherization Program Operational Manual. This may include informal or formal staff training.

#### **3. Safety**

For safety issues, the Subgrantee will be required to correct all deficient work and to re-inspect all completed homes with similar concerns, providing routine updates to DNR/DE until all concerns are corrected. DNR/DE will re-inspect to verify that

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corrections have been made either through an on-site inspection or by telephone contact with clients.

**4. Fiscal Compliance**

DNR/DE will require subgrantees to take corrective action when a Subgrantee is not in compliance with the federal and state requirements. The action taken will depend upon the nature of the problem. If, for example, a problem involves a disallowed cost, the Subgrantee will be required to repay DNR/DE. DNR/DE will require the Subgrantee to provide documented evidence of corrective action(s) when DNR/DE has determined that the Subgrantee is not in compliance. DNR/DE will monitor subgrantee implementation of corrective actions during annual on-site monitoring visits.

**III. IMPROVEMENTS BASED ON PAST YEARS' EXPERIENCES**

The Weatherization Assistance Program will continue to be upgraded to keep current with new accepted technology and improved ways of conducting business such as pressure diagnostics testing, use of infrared camera in the field and BPI certification.

**IV. QUALITY CONTROL MEASURES**

**A. Statewide Requirements**

**1. Inspections**

Before reporting a completed home, DNR/DE requires all homes pass a final inspection by subgrantees. No dwelling unit may be reported as a completed unit until all weatherization measures have been installed according to the work plan, or as documented in a change order request, and the subgrantee, or its authorized representative, has conducted a final inspection and certified that the work has been completed in a professional manner, in accord with WAP work standards, and in accordance with the priority determined in 10CFR 440. Expenses associated with a home that fails DNR/DE inspection may be withheld from the Subgrantee's subsequent reimbursement until the home passes.

**2. Work Measures**

The work measures are determined by a comprehensive audit procedure for site built homes and mobile homes. The audit prescribes a prioritized package of measures to be installed in conjunction with site-specific decisions made by the auditor. More detail is provided in the technical standards of the DNR/DE Weatherization Program Operational Manual.

**B. Purchasing Controls**

**1. Materials Specifications 10 CFR 440 Appendix A (Revised)**

Each Subgrantee is required to specify material standards in their bid documents. Materials are required to meet or exceed standards specified in the most current 10 CFR Part 440 Appendix A and the Missouri WAP material standards list. DNR/DE requires all materials have a long term life expectancy, if applicable. Missouri Subgrantees require that vendors submit certification documentation for all major weatherization materials such as insulation and storm windows. Bid and contract documents are reviewed by DNR/DE.

**2. Materials Purchasing Standards**

Standards for competitive bidding are detailed in the Weatherization Program Operation Manual; Procurement Section.

**C. On-Site or Local Controls**

**1. Responsibility for Post-Work Inspections**

DNR/DE monitoring staff reviews the organizational structure of each Subgrantee to insure segregation of duties. In the

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case of small agencies which employ not more than three WAP staff, DNR/DE will allow the same person who performs the initial inspection to perform the final inspection. However, at least 5% of all final inspections must be performed by a person other than the person who performed the initial inspection.

**2. Accuracy of Work Orders and Inspections**

The Subgrantee final inspectors are required to assure that proper work priorities were followed and that the work has been properly performed. DNR/DE monitoring staff will review the process. A Subgrantee having problems will first be provided more technical assistance. Continued problems will result in further steps beginning with disqualification of Subgrantee inspectors and ending with the subgrantee loss of DNR/DE funding. DNR/DE will implement this provision to emphasize the importance of completing work in a cost-effective and quality manner.

**V. MONITORING REPORTS**

DNR/DE will report progress to US DOE using the following method:

**A. Submitting an Annual/Project Summary Report**

The annual/project summary report documents the following:

- Number and types of monitoring visits scheduled and completed.
- Significant findings.
- Findings status.
- Significant corrective actions.
- Current management issues.
- Assistance needs.

An annual summary report will be provided to US DOE giving an overview of the year end and the status of activities that were planned.

**III.6.4 Training and Technical Assistance Approach**

The goals of the Missouri Low-Income Weatherization Assistance Program are to provide effective management of federal, state and local funding; continuation of improved weatherization services, increased energy efficient housing, long-term reduction in utility bills and comfort and safety of those served.

Training and Technical Assistance is an essential strategy to meet the goals of the Missouri Low-Income Weatherization Assistance Program. The following details training activities.

**A. Assessment of training needs for local weatherization agencies:**

Monitoring oversight and agency reporting are indicators of local agency productivity and quality of weatherization retrofit. Training needs are identified through this oversight.

Personnel inventories and surveys are used to determine the type of training required and the best means of providing instruction. Inventory and analysis of agency personnel, equipment, advanced technologies and protocols are used to determine the status of each agency's efforts in implementing new technologies; identifying agencies that are available to assist others in implementing new or advanced technologies.

Training and Technical Assistance meetings with the weatherization director's Energy Housing Professional Alliance group and their Technical Work Group.

Subgrantees and contractors will be checked at least annually for compliance with certification requirements such as BPI, Lead Safe, and OSHA 10. The worksite will be checked for compliance with required health and safety equipment, personal protection gear, and reference materials.

**B. Productivity of agencies and development of T&TA activities and priorities:**

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Monitoring oversight and agency reporting are indicators of local agency productivity and quality of weatherization retrofit. Advanced energy audit procedures (NEAT) are used for single-family dwelling units and (MHEA) are used for mobile home dwelling units. Advanced energy audits approved by the U.S. DOE and the Missouri Division of Energy are used for multi-family dwelling units. A minimum savings-to-investment ratio of 1.0 is used as a threshold for the application of weatherization measures.

Inventory and analysis of agency personnel, equipment, advanced technologies and protocols are used in a variety of ways including:

- Determining the status of each agency's efforts in implementing new technologies
- Identifying agencies that are available to assist others in implementing new or advanced technologies
- Development of priorities within annual training plans.

See Annual File, section 11.6 for additional information.

#### **III.6.5 Energy Crisis Plan**